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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,064	04/03/2001	Kiyotaka Sasanouchi	43890-482	2705

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EXAMINER

KERVEROS, JAMES C

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 04/25/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,064

Applicant(s)

SASANOUCI ET AL.

Examiner

James C Kerveros

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

Figure 14 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because of minor informalities.

On line 1 in the opening sentence of the abstract, please delete "It is an object of the invention to present".

Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

Claim 5 is objected to because of the following informalities:

In Claim 5, on line 3, please replace "an" with ----a----.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szczymbak et al. (US 5479096) in view of Applicant's admitted prior art.

Regarding Claim 1, Szczymbak discloses a sensing pressure system with digital temperature and measurement gain and offset correction, comprising:

Pressure sensitive resistance transducer (12) connected to power supply (10), where the transducer is a physical quantity such as pressure, acceleration or torque. The combination of power supply and transducer represent a measurement parameter transducer (14), as shown in FIGURE 1.

A controller block (38 and 40) for detecting an analog electrical output indicative of the measurement parameter provided resistance transducer (12) and supplying the analog electrical output to preamp (16), which amplifies the transducer analog signal and where amplifier (28) amplifies the temperature corrected analog output by providing the desired analog sensor output. The controller further, comprising:

An A/D analog-to-digital converter (30) receives a signal from the pressure sensitive resistance transducer (12) through the analog preamplifier (16) output, (FIGURE 1).

A memory transducer-store (32), which is a Programmable Read Only Memory (PROM), stores the measurement parameter gain and offset corrections for different values of the analog preamplifier output (16), which correct for the transducers gain and offset, respectively. The digital output of the transducer store 32 is supplied to transducer gain block 34 and offset block 36.

A D/A converter compensating a signal from the A/D (30) from the pressure sensitive resistance transducer (12) electrical characteristics due to resistance changes of the transducer, where the compensation digital output value of the transducer is stored in memory (32) and is supplied to the transducer gain block 34 and offset block 36. The blocks can be electronic potentiometers or digital-to-analog converters (D/A).

The adjustment values from gain block 34 and offset block 36 provide inputs to an analog signal for correction of the gain and offset of the amplifier 28.

Regarding Claim 1, Szczymbak in (US 5479096) does not disclose the detailed structural features of the pressure sensitive resistance element. However, Applicant's own admitted prior art, FIGURE 14, shows a conventional piezoresistive pressure sensitive resistance sensor comprising two insulating substrates (51,52) upper and lower disposed face to face and a pressure sensitive conductor (54) interposed the two insulating substrates (51, 52). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to employ a conventional piezoresistive

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pressure resistance sensor as shown by the Applicant's own admitted prior art (FIGURE 14) in the device of Szczymbak for the purpose of detecting electrical characteristics indicative of a measured parameter provided by conventional piezoresistive pressure resistance transducer sensor.

Regarding Claim 2, Szczymbak discloses a controller block (38 and 40) further comprising a temperature sensor (18), which provides an electrical output related to the temperature of the transducer 12. The temperature store (22) provides a temperature gain and a temperature offset correction outputs. The gain correction output is applied to the gain block 24 and the offset correction is applied to offset block 26.

Regarding Claim 4, Szczymbak discloses a reference output voltage source gain block 34 and offset block 36 for providing an offset to amplifier 28 output. An error amplifier (28), for receiving the reference output voltage and which amplifies the transducer analog signal and the temperature corrected analog output by providing the desired analog sensor output.

Regarding Claims 3 and 5, Szczymbak fails to disclose a plurality of output terminals corresponding to plurality of resistance elements and detection output showing the abnormality of the signal processing. In reference to Claim 3, Szczymbak discloses a transducer (12) comprising a plurality of resistance elements in a bridge connection with a constant voltage supply 50 across junctions A and C, shown in FIGURE 2. The A/D converter 30 converts the signal from the transducer 12 of the bridge type connection and stores the information in memory 58. It would have been

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obvious to a person of ordinary skill in the art to use the plurality resistance elements of the bridge connection in the device of Szczymbak by adding plurality of output terminals with abnormality detection output for the purpose of sensing a plurality of resistance elements and for generating outputs indicative of the measurement parameter provided by the plurality resistance elements.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Raynes (US 5146788) ISSUED: September 15, 1992, apparatus and method for a temperature compensation of a catheter tip pressure transducer.

Any inquiry concerning this communication from the examiner should be directed to JAMES C. KERVEROS at (703) 305-1081 or the examiner's supervisor, N. LE at (703) 308-0750.

The official Fax numbers for the organization are (703-872-9318) Before-Final and (703-872-9319) After-Final Office actions. Any inquiry of a general nature relating to this application should be directed to the receptionist at (703) 305-4900.

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Date: April 18, 2002

By:  4/18/02